



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: March 01, 2016
Project End Date: June 25, 2020

Permit Number: 2015-4-455+02
FPA/Public Notice Number: N/A
Application ID: 4326

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
City of Bothell - Department of Public Works ATTENTION: Andy Loch 9654 NE 182nd Street Bothell, WA 98011	R2 Resource Consultants, Inc. ATTENTION: Paul DeVries 15250 NE 95th Street Redmond, WA 98052

Project Name: Sammamish River Off-Channel and Wetland Habitat Restoration Project

Project Description: The City of Bothell (COB) Public Works Department (PWD) proposes to reconnect and restore ~1,100 ft of an old remnant channel and floodplain of the Sammamish River within the City of Bothell limits. The project design includes restoration and enhancement measures to

1. Hydraulically reconnect the relic channel and floodplain to the Sammamish River at both upper and lower ends making the project site accessible as off-channel rearing habitat for salmonids, with an emphasis on Chinook (*Oncorhynchus tshawytscha*) and coho (*O. kisutch*) salmon;
2. Enhance the reed canarygrass (*Phalaris arundinaceae*) dominated relic floodplain wetlands with extensive plantings of native wetland shrubs;
3. Convert Himalayan blackberry (*Rubus armeniacus*) dominated wetland buffer to native riparian floodplain forest and scrub-shrub vegetation ; and
4. Utilize the channel cut material to create slightly elevated floodplain wetland areas suitable for tree plantings, thereby enhancing the wetland scrub-shrub and forest habitat structure for birds and wildlife.

PROVISIONS

1. This 5-YEAR STANDARD Hydraulic Project Approval (HPA) is issued for:
 - a) Excavation and restoration of approximately 1,100 feet of a relic side channel to the Sammamish River in what is currently an invasive species dominated wetland and upland complex in the City of Bothell;
 - b) Redistribution of excavated sediment to facilitate restoration of native wetland scrub shrub and forested wetland communities in the floodplain;
 - c) Removal of an existing 18-inch corrugated metal culvert that currently connects wetlands to the Sammamish River;
 - d) Installation of an upstream 10-foot-wide by 30-foot-long by 4-foot-tall precast concrete box culvert;
 - e) Installation of a downstream 6-foot wide by 30-foot-long by 5-foot-tall precast concrete box culvert to connect to an existing backwater slough of the Sammamish River; and
 - f) Removal of invasive species and installation of native plantings per the submitted Planting Plan (Sheets 27 to 32 of 33).



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Note: This project occurs on the Sammamish River, which is known to support chinook, coho, sockeye, steelhead, and kokanee salmon.

Note: This HPA is being issued for 5 years due to uncertainty in the project schedule due to funding procurement.

Note: This HPA was modified on March 1, 2016 to include isolation and fish removal provisions.

2. TIMING LIMITATIONS: The project may begin immediately and shall be completed by June 25, 2020, provided:

- a) All work below the ordinary high water line (OHWL) of the Sammamish River be conducted between July 16 and August 31 of calendar years 2015, 2016, 2017, 2018, and 2019; and
- b) All work within stream-associated wetlands be conducted between June 15 and October 15 of calendar years 2015, 2016, 2017, 2018, and 2019.

Work outside of the wetlands and OHWL may occur at any time of year, provided all measures to prevent erosion and sedimentation from entering the river are in place, located above the OHWL and/or on the upland side of the delineated wetland, and functioning properly. Planting should occur during the fall or spring to maximize survival of installed vegetation.

3. APPROVED PLANS: Work shall be accomplished per plans and specifications approved by the Washington Department of Fish and Wildlife (WDFW) entitled "City of Bothell - Sammamish River Off-channel Habitat Restoration Project: 90% Design" received May 26, 2015, including all supporting documents and communications uploaded to the APPS project file; except as modified by this HPA. A copy of these plans shall be available on site during construction.

4. NOTIFICATION AND PHOTOGRAPH REQUIREMENT: The Habitat Biologist listed below shall receive written notification (email or mail) from the person to whom this HPA is issued (permittee) or the agent/contractor no less than three working days prior to the start of work and prior to watering of the side channel, and again within seven days of the completion of work to arrange for a compliance inspection. The notification shall include the permittee's name, project location, starting date for work or completion date of work, and the permit number for this HPA. Photographs of this project shall be taken showing the site before work begins and after work is complete. Photos and all notifications shall be uploaded online to the Aquatic Protection Permitting System (APPS) under Post Permit Requirements (for text) and under Submission Documents (for photographs) and emailed to the Habitat Biologist (Angie.Peace@dfw.wa.gov).

5. FISH KILL/WATER QUALITY NOTIFICATION: If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills), immediate notification shall be made to the Washington Military Department's Emergency Management Division at 1-800-258-5990, and to the Habitat Biologist listed below.

6. INVASIVE SPECIES: To prevent the spread of invasive species, all gear and equipment used on site (including equipment, hand tools, boots, waders, etc.) shall be thoroughly cleaned before arriving and leaving the project area. Any water and/or chemicals used to clean gear and equipment shall be properly disposed of. Additional information can be found in WDFW's Invasive Species Management Protocols (November 2012), available online at <http://wdfw.wa.gov/publications/01490/wdfw01490.pdf>.

WATER QUALITY RELATED

7. Every effort shall be taken during all phases of this project to ensure that sediment-laden water is not allowed to enter the stream.

8. Erosion control methods shall be used to prevent silt-laden water from entering the stream. These may include, but are not limited to, straw bales, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas.

9. Wastewater from project activities and water removed from within the work area shall be routed to an area landward of the ordinary high water line to allow removal of fine sediment and other contaminants prior to being discharged to the stream.

10. All waste material such as construction debris, silt, excess dirt or overburden resulting from this project shall be



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deposited above the limits of flood water in an approved upland disposal site.

11. If high flow conditions that may cause siltation are encountered during this project, work shall stop until the flow subsides.

12. Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the stream.

EQUIPMENT RELATED

13. Equipment used for the culvert removal and installation of the upstream and downstream culverts shall operate stationed on existing paved or disturbed areas to the extent possible.

14. Equipment used for this project may operate below the ordinary high water line, provided the drive mechanisms (wheels, tracks, tires, etc.) shall not enter or operate below the ordinary high water line of the Sammamish River.

15. Equipment used for this project shall be free of external petroleum-based products while working around the stream. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working in and around the wetlands and stream. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.

IN-WATER WORK AREA ISOLATION USING A COFFERDAM STRUCTURE

16. Use a cofferdam, dike, or similar structure to exclude water from the work area.

17. Maintain water quality when installing and removing the cofferdam, dike or similar structure.

18. Install the cofferdam, dike or similar structure and remove fish prior to the start of other work in the wetted perimeter.

19. Sequence the work to minimize the duration of dewatering.

FISH LIFE REMOVAL

20. All persons participating in capture and removal must have training, knowledge, and skills in the safe handling of fish life.

21. If electrofishing is conducted, a person with electrofishing training must be on-site to conduct or direct all electrofishing activities.

22. Capture and safely move fish life from the work area to the nearest suitable free-flowing water.

23. All persons removing fish life from a job site must follow the protocol entitled Regional Road Maintenance, Endangered Species Act Program Guidelines (WSDOT 2002 and 2008 Addendum) and the Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (NMFS 2000).

CULVERTS (PERMANENT)

24. The culvert width at the excavated side channel shall be equal to or greater than the average width of the excavated side channel.

25. The culvert shall be installed to maintain structural integrity to the 100-year peak flow with consideration of the debris likely to be encountered.

26. Fill associated with the culvert installation shall be protected from erosion to the 100-year peak flow.

27. The culvert shall be installed and maintained to avoid inlet scouring and to prevent erosion of stream banks downstream of the project.

28. Gravel aprons associated with the culverts shall be composed of rounded material not to exceed 4 inches in diameter per the approved plans.

29. The downstream culvert facility shall be maintained by the owner(s) per RCW 77.57.030 to ensure continued,



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unimpeded fish passage. If the structure becomes a hindrance to fish passage, the owner(s) shall be responsible for obtaining an Hydraulic Project Approval and providing prompt repair. Financial responsibility for maintenance and repairs shall be that of the owner(s).

30. The culverts shall be installed in the dry or in isolation from the river flow by the installation of a double row of sand bag cofferdams per the submitted plans.

31. Each of the installed culverts shall not exceed 30 feet in total length.

32. Disturbance of the streambed and banks shall be limited to that necessary to place the culverts and any required channel modifications associated with them. Affected streambed and bank areas outside the culverts and associated fill shall be restored to preproject or improved habitat configuration following installation of the culverts. Within one year of project completion, areas of bare soil shall be revegetated with native or other approved woody species.

SIDE CHANNEL

33. The excavated side channel shall incorporate fish habitat components, meander configuration, and native or other approved vegetation to benefit fish life and as shown in the approved plans.

34. During construction, the new channel shall be isolated from the Sammamish River by plugs at the upstream and downstream ends of the new channel. These plugs shall be substantial enough to prevent flood flows from entering the new channel during construction.

35. Before water is diverted into the permanent new side channel, approved fish habitat components and bank protection (densely planted live willow and dogwood stakes allowed to establish for two years) to prevent erosion shall be in place. Fish habitat components and bank protection material shall be installed to withstand the 100-year peak flows.

36. The fish habitat log structures shall be of fir, cedar, or other approved coniferous species.

37. The fish habitat structures shall be placed so that they are within the low flow channel.

38. Spoils from the excavated side channel shall be placed within the existing wetland but outside of the 100-year floodplain boundary to facilitate restoration of native scrub shrub wetland and forested wetland communities.

39. The angle of the upstream culvert shall allow a smooth transition of stream flow.

40. Watering of the newly excavated side channel shall be conducted only after inspection and approval of the new channel by the Habitat Biologist listed below or his/her representative.

41. Diversion of flow into the new channel shall be accomplished by the following:

1. First remove the downstream plug.
2. Face the stream side of the plug with a sandbag revetment or similar approved mechanism.
3. Partially remove the upstream plug to allow 1/3 to 1/2 of the flow down the new channel for at least overnight.
4. Remove the rest of the upstream plug once the new channel has flow throughout its entire length.

SITE RESTORATION AND MONITORING

42. All trash and unauthorized fill, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, plastic, etc., below the OHWL in and around the project area shall be removed and deposited above the limit of flood water in an approved upland disposal site.

43. The submitted Planting Plan (Sheets 27 through 32 of 33 in the submitted plans) shall be implemented to positively benefit fish life and shall include the installation of native trees, shrubs, and hydroseeding with a native wetland grass/sedge seed mix in the streambank/riparian restoration area.

44. All erosion control materials that will remain onsite shall be composed of 100% biodegradable materials.

45. Implementation monitoring, long-term function monitoring, and associated adaptive and long term management as described in the "Sammamish River Off-Channel and Wetland Habitat Restoration Project Monitoring Plan" dated June 18, 2015; shall be conducted for a period of at least 10 years to document the condition of the site as it develops over



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time, to document progress toward (or away from) performance standards over time, and to enable early identification of problems in the site's development that would trigger the need for adaptive management activities.

46. Monitoring reports shall be submitted to the Habitat Biologist or his/her representative.

LOCATION #1:	Site Name: Various Wetlands by Sammamish River , Bothell, WA 98011					
WORK START:	June 26, 2015			WORK END:	June 25, 2020	
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
08 - Cedar - Sammamish		Unknown Stream Number			Unknown	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SW 1/4	08	26 N	05 E	47.7577	-122.2053	King
<u>Location #1 Driving Directions</u>						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



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MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. Minor modifications do not require you to pay additional application fees or be issued a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. Do not include payment with your request. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you paid an application fee for your original HPA you must pay an additional \$150 for the major modification. If you did not pay an application fee for the original HPA, no fee is required for a change to it. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, payment if the original application was subject to an application fee, and the requestor's signature. Send your written request and payment, if applicable, by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov, but must send a check or money order for payment by surface mail. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.



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A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee will conduct an informal hearing and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist Angie.Peace@dfw.wa.gov
Angie Peace 425-427-0570

for Director
WDFW